

*Northern.*—*Andræa Rothii*, *A. rupestris*, *Splachnum ampullaceum*, *Weissia nigrita*, *Didymodon inclinatus*, *Trichostomum canescens*, *T. heterostichum*, *Bartramia ithyphylla*, *B. arcuata*, *Buxbaumia*, *Hypnum catenulatum*, *H. Crista Castrensis*.

*Upland.*

*Splachnum mnioides*, *S. sphæricum*, *Bryum julaceum* (?), *B. crudum*, *B. alpinum*, *Pterogonium filiforme* (?), *Polytrichum hercynicum*, *Weissia acuta*, *Polytrichum alpinum*, *Orthotrichum Ludwigii*.

*Median.*

*Gymnostomum rupestre*, *Splachnum tenue*, *Grimmia torta*, *Trichostomum patens*, *Bartramia gracilis*.

*Subalpine.*

*Conostomum boreale*, *Gymnostomum lapponicum*, *Cyrtodon splachnoides*, *Ædipodium Griffithianum*, *Bryum Ludwigii*, *B. elongatum*, *Dicranum Starkii*, *Grimmia spiralis*, *Bartramia Halleriana*, *Splachnum angustatum*, *S. vasculosum*, *Didymodon capillaceus*, and probably the following rare species discovered by Dr. Greville: *Weissia elongata*, *W. latifolia*, *Grimmia atrata*, *Didymodon glaucescens*.

*Alpine.*

*Andræa nivalis*, *Gymnostomum cæspitium* and *Polytrichum septentrionale*.

The following species appear to have an extensive range both in latitude and altitude: *Andræa Rothii*, *Tetraphis pellucida*, *Didymodon purpureus*, *Trichostomum lanuginosum*, *Dicranum scoparium*, *Tortula tortuosa*, *Polytrichum piliferum*, *P. juniperinum*, *Bryum punctatum*, *B. hornum*, *Bartramia fontana*, *Neckera crispa*, *Hookeria lucens*, and the following species of *Hypnum*: *H. complanatum*, *denticulatum*, *curvatum*, *purum*, *splendens*, *proliferum*, *cordifolium*, *lo-reum*, *triquetrum*, *aduncum*, *cupressiforme*, and *molluscum*.

XXXIX.—*Notes, &c. on the genera of Insects Cneorhinus and Strophosomus, with descriptions of two new Species.* By JOHN WALTON, Esq., F.L.S.

Genus CNEORHINUS, *Schönh.*; PHILOPEDON, *Steph.*

1. *Cneorhinus geminatus*, Fab., Gyll., Steph., Schönh.  
— *albicans*, Schönh.  
*Curc. parapleurus* et *maritimus*, Marsh., Kirb. MSS.  
— *scrobiculatus*, Marsh., Steph., Kirb. MSS.  
— *squamulosus* ( $\alpha$ ,  $\beta$ .) et *lineatocollis* ( $\alpha$ ,  $\beta$ ,  $\gamma$ .), Kirb. MSS.

*C. scrobiculatus* of Marsh., according to a specimen in the collection of Kirby, which has a fovea on each side near the base of the thorax, and which agrees with Marsham's description, is be-

yond all doubt a small variety of this species. I possess a specimen nearly of the same magnitude with two very distinct oblong foveæ in a similar situation on the thorax, and a larger specimen which is less distinctly bifoveolated. Extremely variable in size and in the colour of the scales.

I have found this insect very abundantly on *Cynoglossum officinale*, on the sandy banks near Barham, on the shores of the Bristol Channel in June, and also on many other parts of the coast of England; it has however been taken inland near Bridgenorth, Shropshire, by Mr. Marshall.

2. *Cneorhinus exaratus*, Marsh., Steph., Schönh., Kirb. MSS.  
*Curc. plumbeus*, Marsh., Kirb. MSS.  
 — *sexstriatus*, Marsh.

Distinguished from the last by a more distinct furrow on the rostrum and more prominent eyes, and also by the dissimilarity of the sculpture. *C. exaratus* has the thorax longitudinally rugulose, *C. geminatus* delicately and very minutely punctured; the elytra of the former are deeply punctate-sulcate, with the interstices convex; those of the latter are very finely punctate-striate, with the interstices broad and flat.

It has not hitherto occurred in Germany or in Sweden, and was wanting in the collections of Schönherr and Germar before I supplied them.

I have taken many specimens amongst grass and rushes in the boggy part of a meadow on the north side and adjacent to the bottom of Hampstead Heath. Common in some meadows near Hammersmith, Mr. S. Stevens.

#### GENUS STROPHOSOMUS, Billb., Schönh., Steph.

##### § A. Elytra ovate.

1. *Strophosomus Coryli*, Fab., Mus. Banks, Steph., Germ. var. *a*.  
 — *illibatus*, Schönh.  
*Curc. Coryli*, Marsh., Gyll. Ins. Suec. iii. p. 306. var. *c*.  
 — *Coryli*, Kirb. MSS. et Mus.

My British specimens of this insect were referred by Schönherr to "*Curc. Coryli*, Fab., Marsh., Steph., et *Stroph. illibatus* (v. p. 878) nobis," but Gyllenhal and Germar appear to consider it as only a variety of *St. obesus*, yet it is quite distinct. I sent to Germar four specimens of *Coryli* and eight of *obesus*, on which he has published the following\*: "*Strophosomus Coryli* of Schönh. (i. 535, v. 877) is properly *obesus* of Marsh. and *St. illibatus* of Schönh., the true *Coryli* of Fab. and of Steph. I am however

\* Ent. Zeit. Stettin, no. 5. 1842.

inclined to consider both varieties of the same insect, and I think their numerous varieties may be subdivided as follows :—

- a. With a distinct black sutural stripe at the base: *St. illibatus*, Schönh. ; *Coryli*, Fab. and Steph.
- b. Somewhat smaller, of an uniform brown or gray: *St. Coryli*, Schönh., Gyll. ; *obesus*, Marsh., Steph., and *cognatus*, Steph.
- c. Still smaller, the elytra marked with white at the sides: *St. cervinus*, Fab. ; *asperifoliarum*, Steph. ; *nebulosus*, Steph. ; *rufipes*, Steph. ; *atomarius* of Marsh. and Steph.”

I have examined some hundreds of *Stroph. Coryli*, and I have never seen a specimen without the black stripe at the base of the suture ; I am therefore inclined to think it is a constant character, and not the result of abrasion ; nevertheless it may always be distinguished by the more solid characters of form and sculpture ; the elytra are of a different and less variable form than *obesus* ; the humeral angles more prominent, subrectangular, abruptly rounded and narrowed towards the base, the sides from the shoulders to beyond the middle nearly straight ; in *obesus* the form is nearly oval ; in *Coryli* the thorax is coarsely granulate-rugose, with a narrow dorsal channel sometimes obsolete ; in *obesus* it is rugulose-punctate and not channeled ; the striæ on the elytra of the former are distinctly broader and deeper than in the latter, the interstices more convex, and the sixth from the suture elevated behind the middle ; these differences of sculpture are remarkably distinct in denuded specimens. It is a larger insect and not so variable in size ; and although specimens of *obesus* attain the magnitude of *Coryli*, yet the greater part of the former are considerably smaller than the least of the latter.

Very common on the birch and hazel.

## 2. *Strophosomus obesus*, Marsh.

- *rufipes*, Steph.
- *subrotundus*, Marsh., Kirb. MSS.
- *asperifoliarum*, Steph., non Kirb. MSS.
- *atomarius*, Marsh.
- *cognatus*, Steph.
- *nigricans*, Steph., non Kirby.
- *nebulosus*, Steph.
- Curc. Coryli*, Payk., Gyll., Schönh., Germ. var. *b*, *c*.
- *obesus* (var.  $\delta$ .), Kirb. MSS.

I have recently examined an authentic specimen of *Curc. subrotundus* from the collection of Marsham, which agrees exactly with his description, and I have likewise examined another in the collection of Kirby ; these I have no doubt are large varieties of this species ; *Curc. atomarius*, according to a specimen from the late Mr. Marsham's cabinet and which agrees with his descrip-

tion, is certainly a very small immature variety of his *obesus* with the elytra clouded with fuscous spots, and the body and legs pale rufous; *Curc. nigricans* of Kirby's manuscript and collection is decidedly a dark variety of *Curc. tessellatus* of Marsh.; *Stroph. rufipes*, *asperifoliarum*, *cognatus* and *nebulosus* of Steph. 'Illustrations' are all varieties of this protean insect. I sent fifteen specimens including varieties to Schönherr, who referred them to *Curc. obesus*, Marsh., *Coryli*, Payk., Gyll. and Schönh. It is so extremely variable in size (length  $1\frac{1}{2}$ — $2\frac{1}{2}$  lines) and in the colour of the scales, that scarcely two individuals out of many hundreds can be found exactly alike. I have found it very abundantly on its first appearance in the middle of May, and again about the beginning of September, from which it seems to be double-brooded; and specimens frequently occur at those periods with the body and legs rufous, densely clothed with bright scales of various shades of coppery-red and golden-yellow or fuscous, or with cinereous and silvery-white or fuscous, rarely with shining brassy-green and coppery-red scales, beautifully and irregularly variegated or nebulous, or with pale spots on the punctures of the elytra; older specimens found in July and August have the body black, the legs dusky ferruginous or the femora and tibiæ piceous, and with the scales of an uniform dull gray or brown and much obscured by earthy matter; the general form of the elytra is nearly oval, but it has a tendency, particularly in large specimens, to become broader in proportion to the length and more convex; but these varieties in a long series are closely linked together by a regular gradation from one form to another, and by the general character of the sculpture, so that no separation can be made.

I have found this insect very plentifully on low underwood and amongst thick herbage in Bishop's Wood, near Hampstead, and in Birch Wood, likewise in Yorkshire.

### 3. *Strophosomus fulvicornis* (Curt. in litt.), Walt.

Black or piceous, sparingly or rather densely clothed with cinereous and fuscous scales. Head very short, transverse, longitudinally rugulose, with a deep lineolet in the centre; eyes extremely prominent; rostrum short, broadest at the base, distinctly longer and a little narrower than the head, triangularly emarginated at the apex above, transversely strigated and deeply foveolated at the base, with a very broad and rather deep longitudinal furrow, which is carinated in the middle. Antennæ as long as the head and thorax, fulvous and finely pubescent. Thorax short, subquadrate, the base and apex truncate, nearly of equal breadth, moderately rounded at the sides, convex above, rather coarsely

but not thickly punctured, sometimes rather rugose. Elytra ovate with the apices acute, convex above, punctate-striate, the interstices rather broad, flat and smooth, the fourth from the suture on each elytron sometimes slightly raised behind the middle. Clothed with cinereous and fuscous scales, variegated or concolorous, and of a subelliptical form; the interstices with a series of very short and fine suberect hairs, sometimes very obsolete. Legs and antennæ entirely fulvous. Length  $1\frac{2}{3}$ — $2\frac{1}{3}$  lines.

The above description is taken from three insects kindly lent to me by Mr. Curtis. It approaches very closely to the two preceding, but the general form appears to me somewhat different; it is neither so thickly clothed nor so variable in the colour of the scales; the head is longitudinally rugulose; in *Coryli* and *obesus* with seven deep sulci and the transverse striga much more distinct; the thorax subremotely punctured; in *obesus* rugulose-punctate; the depressed scales on the elytra when magnified appear to be of a subelliptical form, whereas in its congeners they are subrotundate; the suberect hairs are finer and shorter and sometimes very obsolete. I am strongly inclined to consider it specifically distinct, but for want of a sufficient number of specimens, I am unable to ascertain whether the characters of the sculpture and the form of the scales are constantly different. I therefore hesitate to speak positively until I have had an opportunity of examining more specimens.

Taken by Mr. Curtis on heath in a fir plantation on Parley Heath in October, and likewise I believe by Mr. Dale.

4. *Strophosomus retusus*, Marsh., Steph. Illustr.  
 — *squamulatus*, Steph. Manual.  
 — *alternans*, Schönh., et *oxyops* (Chevr.), Schönh.  
*Curc. obesus* ( $\alpha$ ,  $\beta$ ,  $\gamma$ .), Kirb. MSS.

I possess foreign specimens of *Curc. squamulatus* of Fab. from Schönherr and Germar, which are specifically different from *Curc. retusus* of Marsh., and not yet to my knowledge discovered in Britain. I likewise possess foreign specimens of *St. oxyops* from Chevrolat; these are decidedly identical with this species. It may be known from the two preceding by its short robust form, by having the thorax very broad, transverse, and by being very sparingly clothed with short, indistinct erect hairs; the colour of the legs varies from pale rufous to dull ferruginous or piceous: it is not so variable in size nor in the colour of the scales as *St. obesus*.

Found on hedge-banks on the north side of Turner's Wood, Hampstead, in June, and on *Ulex nanus* near Hastings in September.

5. *Strophosomus hirtus*, Schönh., Mant. Curc. viii. p. 399.

Subovate, ferruginous, clothed with fuscous scales and with short erect hairs. Head small, very short, transverse, black, closely and very minutely punctured, the punctures longitudinally confluent; eyes small, moderately prominent; rostrum of uniform breadth, a little narrower and rather longer than the head, deeply furrowed in the middle and elevated at the sides, piceous with the apex testaceous. Antennæ long, slender and entirely testaceous, the scape as long as the flagellum, curved and clavate. Thorax as broad as long, piceous, distinctly constricted near the base and apex, dilated and rounded at the sides, convex above, thickly and minutely rugulose-punctate, and indistinctly foveolated on each side behind the middle. Elytra ovate, ferruginous, deeply sulcate, the sulci obsoletely punctured, the interstices convex, smooth, and with a series of short, claviform, erect hairs, and sparingly clothed with decumbent fuscous scales, deeply cleft at their apices, bifid and trifid. Legs entirely testaceous. Length  $1\frac{1}{3}$  line.

I have the authority of Schönherr for the generic and specific name of this insect; but it differs considerably from all the other species of this genus, by having the head narrower, the eyes smaller and much less prominent; the rostrum narrower, of uniform breadth, and without a transverse striga at the base; the scape of the antennæ longer and curved. I think in general habit and affinity it has a greater resemblance to the insects in the genus *Omius* than to the British forms of *Strophosomus* with which it is associated by Schönherr.

Taken in the neighbourhood of Southampton by Mr. Walcot of Bristol, and subsequently near Arundel amongst moss in February by Mr. S. Stevens.

§ B. *Elytra oblong-ovate.*

6. *S. Faber*, Herbst, Germ., Schönh.  
 — *chaetophorus* et *septentrionis*, Steph.  
*Curc. limbatus*, Marsh. secund. ejus descr.  
 — *pilosellus*, Gyll., Steph.  
 — *Sus* ( $\alpha$ ,  $\beta$ .), Kirb. MSS.

According to Schönherr and Germar, *St. pilosellus* of Gyll. and Steph. is identical with *Curc. Faber* of Herbst.

Immediately recognised from the following by having the thorax sinuated at the base, and by having the body densely clothed with depressed lanceolate scales and with slender erect hairs.

Not very common; I have occasionally found it in damp meadows in June.

7. *Strophosomus limbatus*, Fab., Payk., Gyll., Steph. Manual.  
*Curc. Sus* (var.  $\gamma$ .), Kirb. MSS., Steph. Illustr.

Distinguished at first sight from the preceding by having the thorax exactly truncated at the base; the sides of the thorax and elytra more thickly clothed with subelliptical shining silvery-white scales, and by being without erect hairs; the upper surface is frequently glabrous.

I have many times taken this insect in the north and south of England, invariably on the common heath (*Calluna vulgaris*), in June and October.

XL.—*Notes on Birds*. By T. C. EYTON, Esq., F.L.S.

No. VI.

[With a Plate.]

[Continued from p. 29.]

*Trogon melanocephalus*, Gould (male).

LENGTH of intestine from gizzard to cæca seven inches. Length of cæca one inch two-tenths. Length of rectum two inches four-tenths. Œsophagus large at its upper extremity, contracted in the middle, but at its lower extremity expanded into a proventriculus, measuring nearly one inch in length and four-tenths in diameter when inflated; stomach round and slightly flattened. Epithelium longitudinally rugose, not hardened, extending slightly into the proventriculus. Intestine of large diameter for the size of the bird; rectum only slightly larger than the lower end of the small intestine. Cæca small at their junction with the rectum, and at about half their length expanding into a sac. Cloaca small, the membranes thickened. Trachea simple, acted upon by one pair of sterno-tracheal muscles only. Bronchiæ of large diameter in proportion to that of the trachea. Tongue arrow-shaped, four-tenths of an inch long, armed with a strong spine on each side at the base, and with numerous smaller ones scattered round the epiglottis. The stomach and œsophagus were filled with hard seeds about the size of a pea mixed with a pulpy matter.

The sternum is very broad in proportion to its length; it is narrowest at the junction of the ribs, where it measures half an inch in breadth. The anterior margin is narrower than the posterior; at the former it measures seven-tenths of an inch in breadth, at the latter one inch. The total length of the sternum including the manubrial process is one inch. The posterior margin is indented on both sides with two deep and wide fissures, the exterior ones largest. The keel is four-tenths of an inch in depth, much arched on its inferior margin, and with its anterior one much scolloped; it extends quite to the hinder edge of the sternum. The manubrial process is long and strong, somewhat deflexed and triangular.